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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/552,485

03/19/2008

Yoshimasa Sakamoto

082368-006500US

1941

20350 7590 12/21/2010  
TOWNSEND AND TOWNSEND AND CREW, LLP  
TWO EMBARCADERO CENTER  
EIGHTH FLOOR  
SAN FRANCISCO, CA 94111-3834

EXAMINER

MACFARLANE, STACEY NEE

ART UNIT

PAPER NUMBER

1649

MAIL DATE

DELIVERY MODE

12/21/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/552,485             | SAKAMOTO ET AL.     |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | STACEY MACFARLANE      | 1649                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 September 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) 1,3-17,20-22 and 26-44 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,18,19 and 23-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/30/2010</u> .   | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Response to Amendment***

1. Claims 2 and 18 have been amended as requested in the amendment filed on September 29, 2010. Following the amendment, claims 1-44 are pending in the instant application.

Claims 1, 3-17, 20-22 and 26-44 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected inventions.

Applicant has elected with traverse Group VII and that requirement was deemed final in the previous Office action. Here Applicant further traverses on the ground that PCT Guidelines chapter 10.59 state that when a DNA molecule encodes a specific protein, the protein and the DNA encoding it share a corresponding technical feature and have unity of invention. Applicants are reminded of their right to petition the finality of the requirement under 37 CFR 1.144.

Claims 2, 18, 19 and 23-25 are under examination in the instant office action.

2. Applicant's arguments filed on September 29, 2010 have been fully considered but they are not deemed to be persuasive for the reasons set forth below.

***Priority***

3. Applicant has provided a translation of the Japanese Foreign Priority document 2004-213743 filed July 22, 2004.

***Claim Objections (Withdrawn)***

4. The objection of Claim 2 for improper dependency is withdrawn as per correction.

***Specification (Withdrawn)***

5. As per corrections to the specification submitted 9/29/2010, the objection to the disclosure is withdrawn.

***Claim Rejections - 35 USC § 112 (Withdrawn)***

6. As per amendment to the claim to specify the conditions of stringency, the rejection of Claim 18 under 35 U.S.C. 112, second paragraph, is withdrawn.

***Claim Rejections - 35 USC § 102 (Withdrawn in part)***

7. The translation of the Japanese foreign priority document 2004-213743 filed July 22, 2004 is sufficient to overcome the rejection of Claims 2, 18 and 19 under 35 U.S.C. 102(a) as being anticipated by Zhang et al. January 28, 2005 as evidence by EMBL/GeneBank Accession No. AB013874, November 11, 1989.
8. The translation of the Japanese foreign priority document 2004-213743 filed July 22, 2004 is sufficient to overcome the rejection of Claims 2, 18, 19 and 23-25 under 35

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U.S.C. 102(a) as being anticipated by Ono et al., WO 2004/065599, published August 5, 2004.

9. Rejection of Claims 2, 18 and 19 under 35 U.S.C. 102(b) as anticipated by Morser et al., WO 1999/64608, published December 16, 1999, filed June 4, 1999 is maintained for reasons of record in the previous Office action.

On pages 17-18 of Remarks filed September 29, 2010, Applicant argues that “Morser does not teach, remotely suggest, or provide any motivation to arrive at methods of Claims 2 and 18, as amended.” Applicant further argues that Morser does not disclose selecting a dopaminergic neuron proliferative progenitor cell as defined by the present application to include detection and separating or isolating said cells.

This is not found to be persuasive because Claims 2 and 18 read upon the sole active step of contacting a cell sample with a nucleotide sequence complementary to a nucleotide sequence of SEQ ID NO: 1. The instant claims do not require a step whereby cells are "selected" as defined by the specification. Applicant argues that the samples disclosed by the application comprise cells of the ventral midbrain region or culture cells containing in vitro differentiated dopaminergic neuron progenitor cells. Again, these limitations are not requisite within the instant claims, which read upon contacting “a cell sample”.

The Morser et al. prior art teaches methods comprising contacting cell and tissue samples with nucleic acid probes that are complementary to and hybridize to the corin sequence under stringent conditions (pages 15-16) against the human corin allele.

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Instant SEQ ID NO: 1 is 99.8 identity to SEQ ID NO: 1 of the reference (alignment in previous Office action). The open language of the instant claims, "comprising a nucleotide sequence" complementary to a nucleotide sequence of SEQ ID NO: 1 reads upon a nucleotide probe that is complementary to any two or more nucleotides within the sequence of SEQ ID NO: 1. The Morser reference teaches oligonucleotide probes for methods comprising contacting cell samples with probes of about 10-200, 12-100 or preferably 12-50, 12-25, 14-16, or at least about 15 nucleotides in length (page 20 lines 16-18). Examiner maintains that given the considerable homology between the corin sequence of the reference and SEQ ID NO: 1 of the claims, and the breadth of the claims as encompassing any polynucleotide probe or a probe of at least 15 bases in length, then the method of the instant claims fails to distinguish over the methods taught by the prior art., Claims 2, 18 and 19 are anticipated by the reference.

### ***Double Patenting (Maintained)***

10. Applicant has not traversed this rejection but has asked that it be held in abeyance. Therefore, the rejection of Claims 2, 18, 19 and 23-25 as being rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2 of Patent 7,807,371 issued October 5, 2010 is maintained.

### ***Conclusion***

11. No claim is allowed.

***Conclusion***

12. No Claim is allowed.
13. This application contains claims drawn to an invention nonelected with traverse in Paper filed on 4/22/2010. **A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.**
14. Applicant's amendment necessitated any new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STACEY MACFARLANE whose telephone number is (571)270-3057. The examiner can normally be reached on M-R 5:45 to 3:30, TELEWORK-Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Stucker can be reached on (571) 272-0911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Stacey MacFarlane  
Examiner  
Art Unit 1649

/Lorraine Spector/  
Primary Examiner, Art Unit 1647